Sub D1 7 forming the shunt structure in an alkaline environment with a pH adjusted by an alkaline metal-free pH adjuster.

B2 cont. 4. ~~6.~~ (Amended) The method of claim 1, further comprising:

prior to forming the shunt structure, modifying the exposed surface of the interconnect structure.

B3 6. ~~8.~~ (Amended) The method of claim 1, wherein forming the interconnect structure comprises introducing a barrier material and an interconnect material, and the introduction and reduction of the shunt material precursor precedes the forming of the interconnect material.

7. ~~9.~~ (Amended) The method of claim ~~8~~ 6, wherein forming the interconnect structure further includes introducing a seed material following the introduction of the barrier material.

8. ~~10.~~ (Amended) The method of claim ~~8~~ 6, wherein the opening through the dielectric material comprises a via having a cross-sectional area and a volume, and a trench to the via having a cross-sectional area greater than the cross-sectional area of the via, and introducing the shunt material precursor comprises introducing the shunt material precursor in an amount such that the shunt structure thus formed substantially fills the volume of the via.

9. ~~11.~~ (Amended) The method of claim 1, wherein forming the shunt structure comprises:

placing a substrate comprising the interconnect structure in a bath comprising the shunt material precursor.

B4 11. ~~13.~~ (Amended) The method of claim 1, wherein forming the shunt structure comprises:

dispensing the shunt material precursor onto the interconnect structure.

12. ~~14.~~ (Amended) The method of claim 1, wherein forming the shunt structure comprises:

placing a substrate comprising the interconnect structure in a wafer scrubber; and

while in the wafer scrubber exposing the interconnect structure to the shunt material precursor.

13. ~~15.~~ (Amended) A method comprising:

introducing a conductive shunt material in an opening through a dielectric to a contact point, wherein the opening defines a via having a cross-sectional area and a volume, and a trench to the via having a cross-sectional area greater than the cross-sectional area of the via;

B4 cont. Sub D1 7 introducing an interconnect structure material on the conductive shunt material;

introducing a conductive shunt material precursor having an oxidation number on an exposed surface of the interconnect structure; and

reducing the oxidation number of the shunt material precursor.

14. ~~16.~~ (Amended) The method of claim ~~15~~ 13, further comprising prior to reducing the oxidation number of the shunt material precursor, introducing a reducing agent.

B5 16. ~~18.~~ (Amended) The method of claim ~~15~~ 13, further comprising:

reducing the oxidation number of the shunt material precursor in the presence of a non-metallic chelating ~~agent.~~

17. ~~19.~~ (Amended) The method of claim ~~15~~ 13, further comprising:

reducing the oxidation number of the shunt material precursor in an alkaline environment.

18. ~~20.~~ (Amended) The method of claim ~~15~~ 13, further comprising:

prior to introducing the shunt material precursor, modifying the exposed surface of the interconnect structure.

B6 20 ~~22.~~ (Amended) The method of claim ~~15~~ 13, wherein introducing the interconnect structure comprises introducing a barrier material and an interconnect material.

21. ~~23.~~ (Amended) The method of claim ~~22~~ 20, wherein introducing the interconnect structure material further includes introducing a seed material following the introduction of the barrier material.

22. ~~24.~~ (Amended) The method of claim ~~22~~ 20, wherein introducing the shunt material comprises introducing the shunt material to substantially fill the volume of the via.

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